	Application No.	Applicant(s)
Notice of Allowability	10/820,903	NORTON, ADAM E.
	Examiner	Art Unit
	Amanda H. Merlino	2877

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *application filed 4/8/04*.

2. ☒ The allowed claim(s) is/are *1-7 and 9*.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some*   c) ☐ None of the:

       1. ☐ Certified copies of the priority documents have been received.

       2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

       3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

    * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

    (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

       1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____ .

    (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____ .

    Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date 4/8/04

4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application (PTO-152)

6. ☒ Interview Summary (PTO-413), Paper No./Mail Date *3/30/06* .

7. ☒ Examiner's Amendment/Comment

8. ☒ Examiner's Statement of Reasons for Allowance

9. ☐ Other _____ .

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes

and/or additions be unacceptable to applicant, an amendment may be filed as provided

by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be

submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview

with Michael A. Stallman on 3/27/06.

The application has been amended as follows:

a) claim 8 has been cancelled;

a) on line 8 of claim 1, "the reflection" has been replaced by -- a reflection --;

b) on line 9 of claim 1, "the second" has been replaced by – a second --;

c) on line 9 of claim 1, "the reflection" has been replaced by -- a reflection --;

d) claim 7 has been amended as shown below:

7. (currently amended) A method for optically inspecting and evaluating a

sample, the method comprising:

directing a probe beam to substantially fill the pupil of an objective lens

assembly;

focusing the probe beam on the surface of the sample with the objective

lens assembly;

partially obscuring a first half of the pupil of the objective lens assembly

using an aperture placed between the objective lens assembly and the sample;

~~focusing the probe beam on the surface of the sample;~~

gathering ~~the~~ a reflected probe beam; and

analyzing the reflected probe beam to evaluate the sample.

Reasons for Allowance

Claims 1-7 and 9 allowed.

Ishikawa et al (US 2004/0113043) teach of a restricting mask (24) to restrict the illumination beam.

Norton et al (5,747,813) teach of a reflectometer of an objective pupil stop (41) placed before the objective lens (40).

As to claims 1-3, the prior of record, taken alone or in combination, fails to disclose or render obvious a method for optically inspecting an evaluating a sample, the method comprising directing a probe beam towards an objective lens assembly, reducing the cross-sectional profile of the portion of the probe beam transmitted by a first half of the pupil and gathering a reflection of the portion of the probe beam transmitted by the first half of the pupil through a second half of the pupil and gathering a reflection of the portion of the probe beam transmitted by a second half of the pupil through the first half of the pupil, in combination with the rest of the limitations of claim 1.

As to claims 4-6, the prior of record, taken alone or in combination, fails to disclose or render obvious a device for optically inspecting an evaluating a sample comprising one more optical components for directing a probe beam to substantially fill the pupil of the objective lens assembly, and an aperture positioned to partially occlude a first half of the pupil of the objective, the aperture reducing the cross-sectional profile

of a portion of the probe beam that is projected through the first half of the pupil and collected by a second half of the pupil, the aperture also reducing the cross-sectional profile of a portion of the probe beam that is projected through the second half of the pupil and collected by the first half of the pupil, in combination with the rest of the limitations of claim 4.

As to claims 7 and 9, the prior of record, taken alone or in combination, fails to disclose or render obvious a method for optically inspecting an evaluating a sample, the method comprising directing a probe beam to substantially fill the pupil of an objective lens assembly, focusing the probe beam on the surface of the sample with the objective lens assembly and partially obscuring a first half of the pupil of the objective lens assembly, in combination with the rest of the limitations of claim 7.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amanda H Merlino whose telephone number is 571-272-2421. The examiner can normally be reached on Monday and Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory J Toatley, Jr. can be reached on 571-272-2800 ext 77. The fax

phone number for the organization where this application or proceeding is assigned is

571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Amanda H Merlino
Patent Examiner
Art Unit 2877
March 30, 2006

Gregory J. Toatley, Jr.
Supervisory Patent Examiner